

Figure 1: Values of yield strength of the composites obtained from Nicolais and Narkis' prediction and experiments

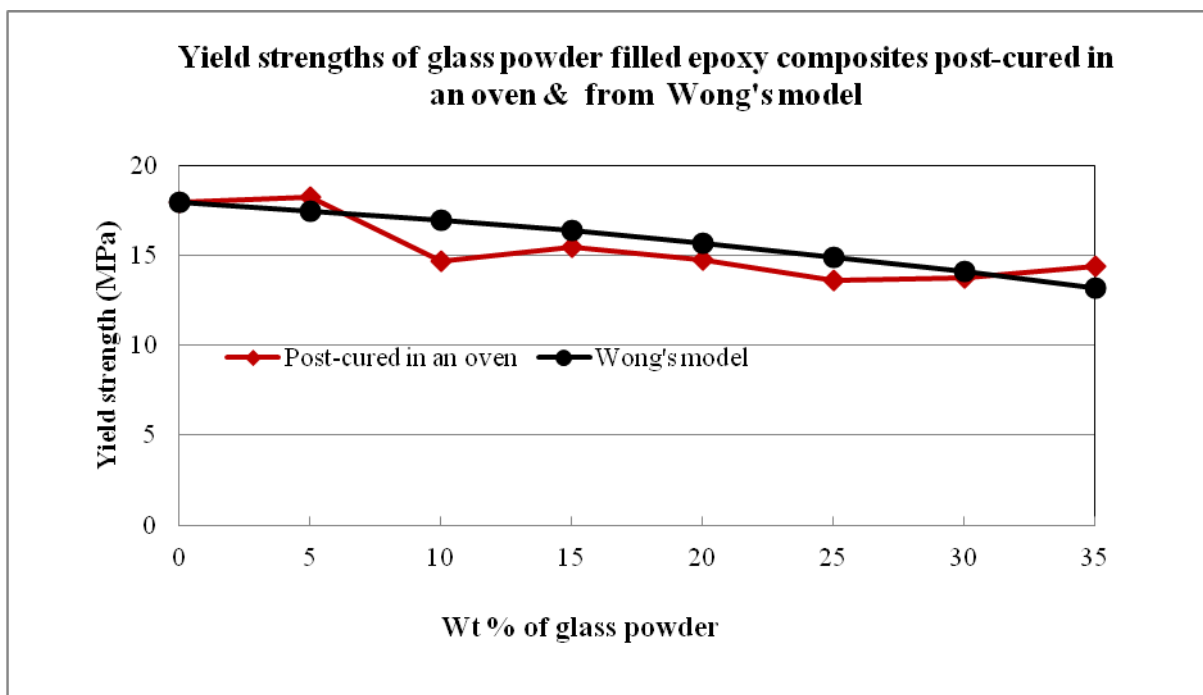


Figure 2: The yield strengths of glass powder filled epoxy composites post-cured in an oven and from Wong's model

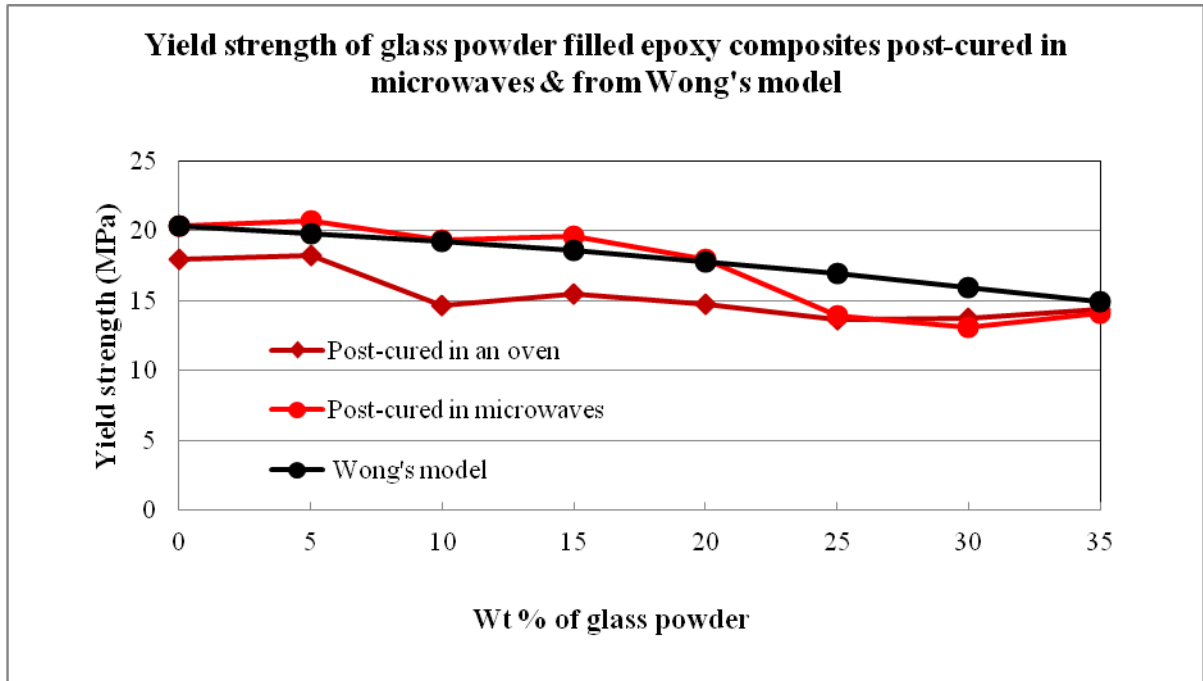


Figure 3: yield strengths of glass powder filled epoxy composites post-cured in microwaves and from Wong's model

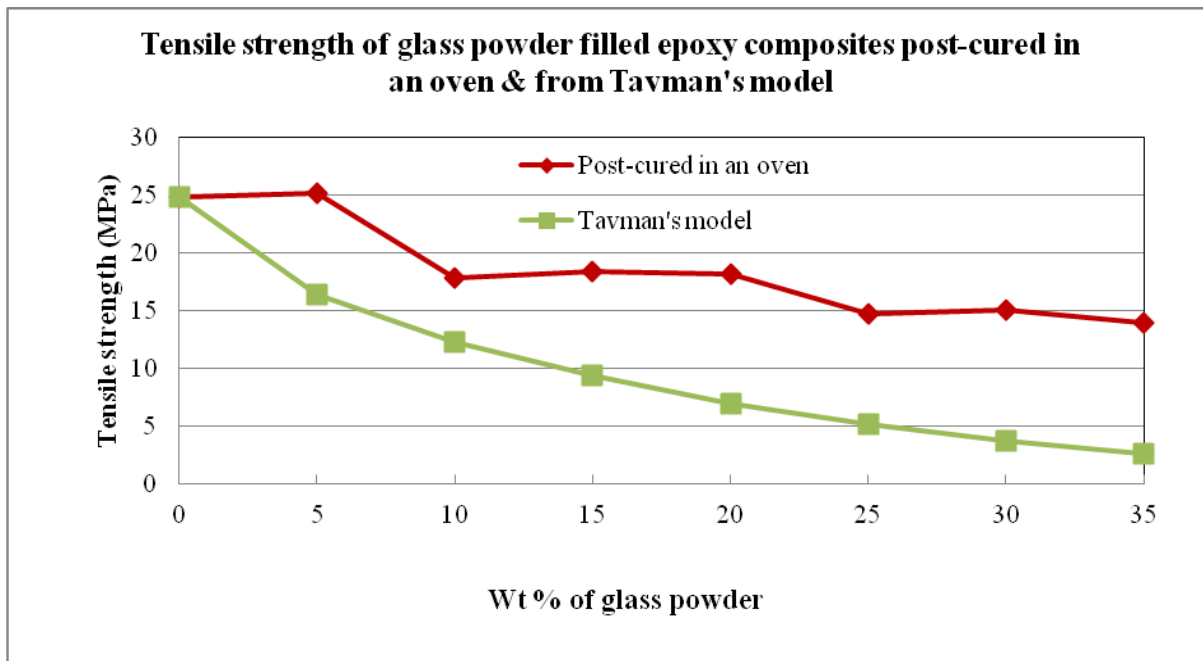


Figure 4: Tensile strengths of glass powder filled epoxy composites post-cured in an oven and from Tavman's model

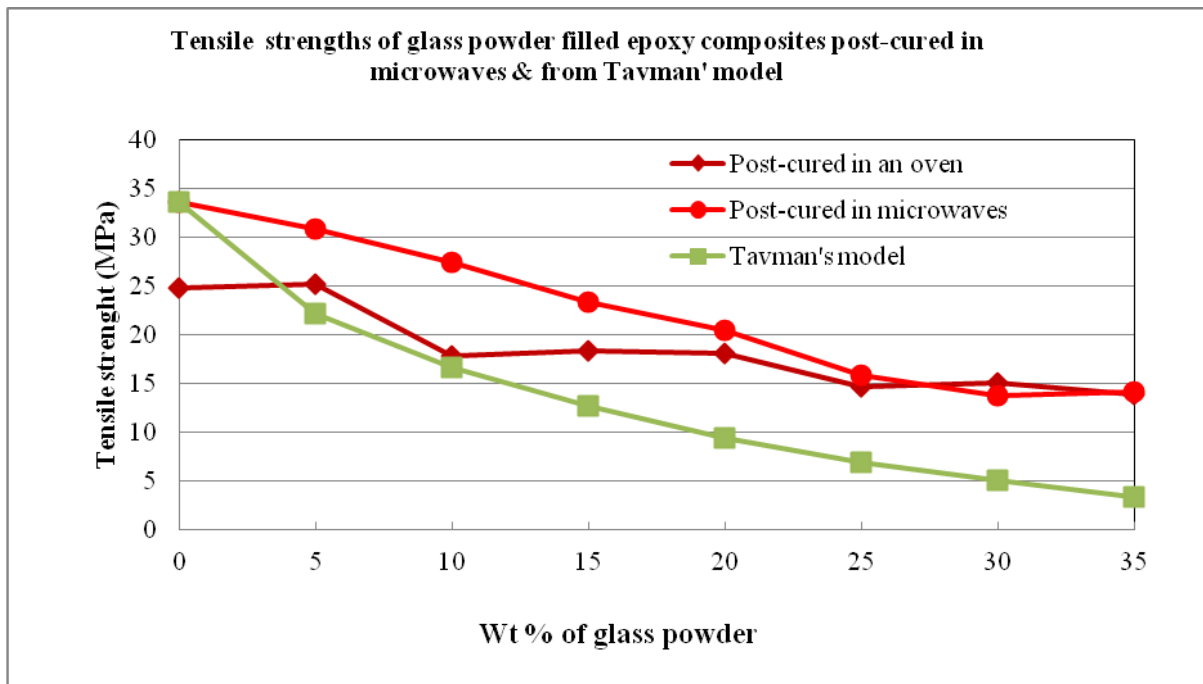


Figure 5: Tensile strengths of glass powder filled epoxy composites post-cured in microwaves and from Tavman's model

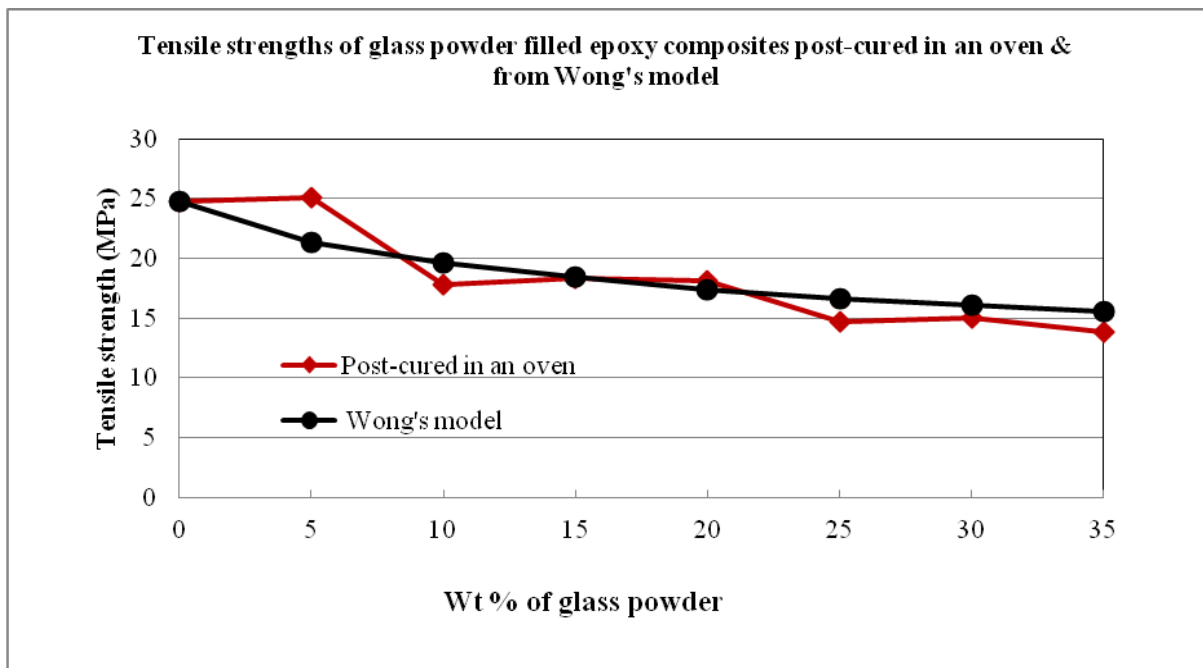


Figure 6: Tensile strengths of glass powder filled epoxy composites post-cured in an oven and from Wong's model

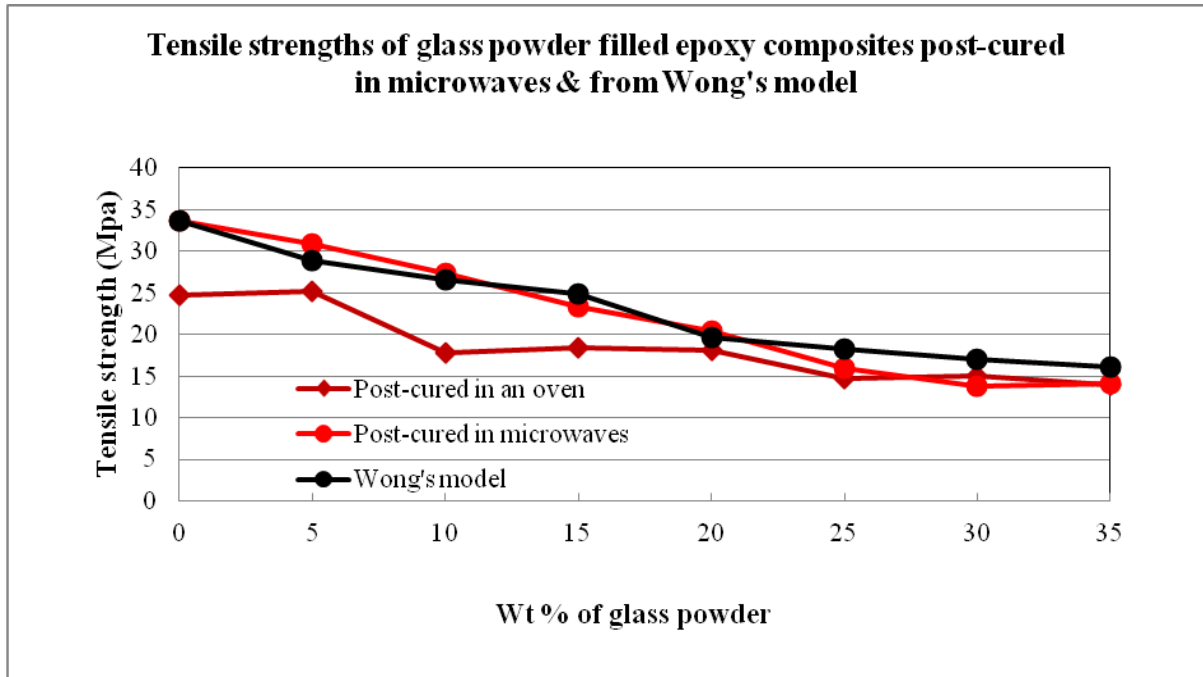


Figure 7: Tensile strengths of glass powder filled epoxy composites post-cured in microwaves and from Wong's model

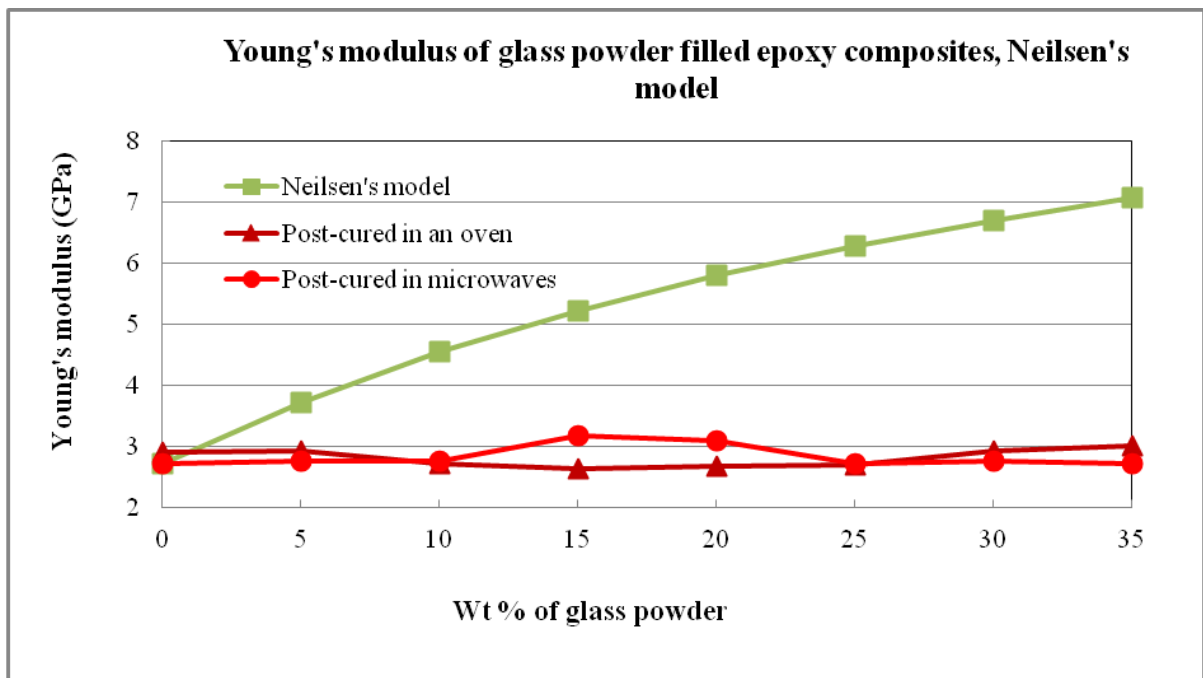


Figure 8: Young's moduli of glass powder filled composites of Neilsen's model, post-cured in an oven and post-cured in microwaves

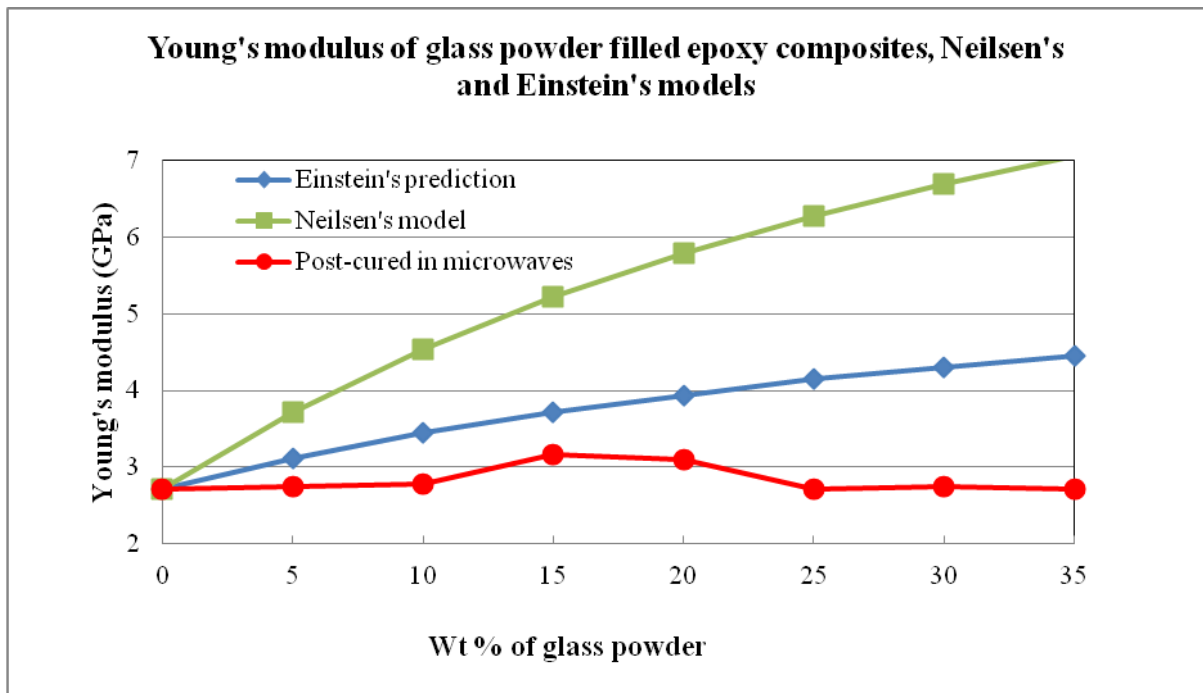


Figure 9: Young's moduli of glass powder filled composites of Neilsen's model, Einstein's prediction and post-cured in microwaves

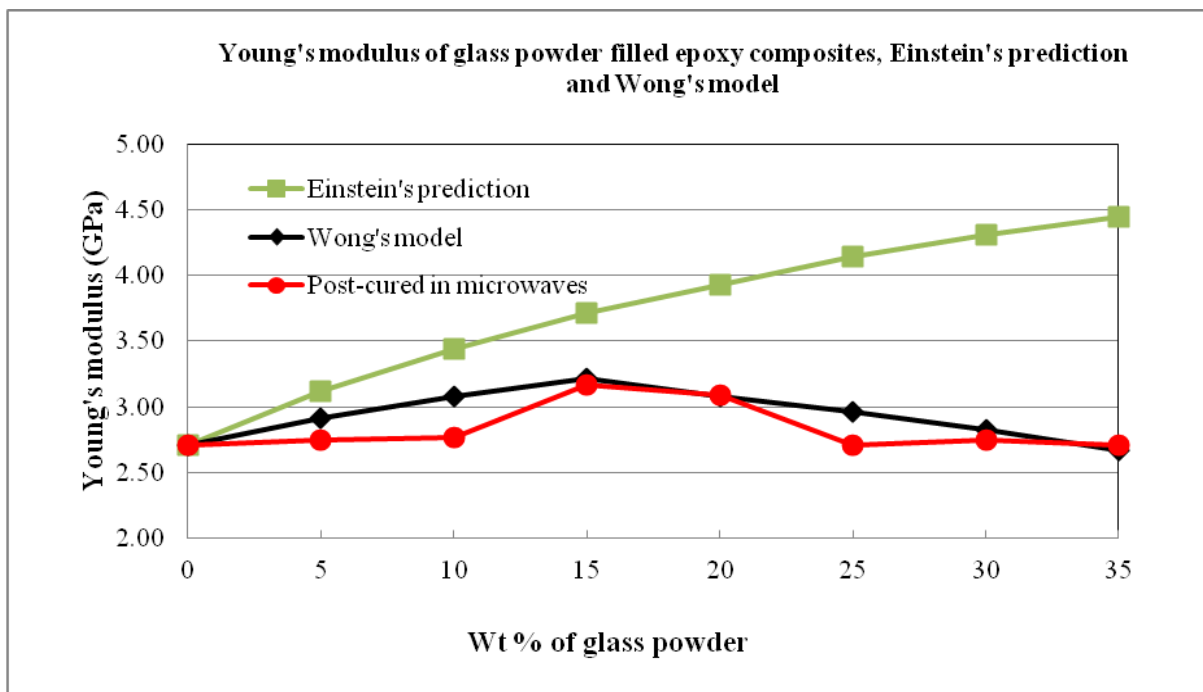


Figure 10: Young's moduli of glass powder filled composites of Wong's model, Einstein's prediction and post-cured in microwaves

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## Data Entry: ANOVA

Enter in the below set of boxes your data for each group (order makes no difference within a group) and then click on the **Calculate Now** button. Empty boxes will be ignored.

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Data for Group A

$A_{01} = 48.77$   $A_{02} = 47.72$   $A_{03} = 48.7$   $A_{04} = 44.68$   $A_{05} = 52.67$

$A_{06} = 57.37$   $A_{07} =$   $A_{08} =$   $A_{09} =$   $A_{10} =$

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Data for Group B

$B_{01} = 31.18$   $B_{02} = 26.02$   $B_{03} = 23.17$   $B_{04} = 18.29$   $B_{05} = 22.71$

$B_{06} = 29.46$   $B_{07} =$   $B_{08} =$   $B_{09} =$   $B_{10} =$

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Data for Group C

$C_{01} = 17.46$   $C_{02} = 14.75$   $C_{03} = 24.76$   $C_{04} = 14.35$   $C_{05} = 17.64$

$C_{06} = 17.80$   $C_{07} =$   $C_{08} =$   $C_{09} =$   $C_{10} =$

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Data for Group D

$D_{01} = 19.38$   $D_{02} = 17.14$   $D_{03} = 18.35$   $D_{04} = 15.38$   $D_{05} = 22.52$

$D_{06} = 17.35$   $D_{07} =$   $D_{08} =$   $D_{09} =$   $D_{10} =$

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Data for Group E

$E_{01} = 20.16$   $E_{02} = 17.38$   $E_{03} = 20.73$   $E_{04} = 15.96$   $E_{05} = 15.95$

$E_{06} = 18.62$   $E_{07} =$   $E_{08} =$   $E_{09} =$   $E_{10} =$

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Data for Group F

$F_{01} = 15.01$   $F_{02} = 15.79$   $F_{03} = 12.79$   $F_{04} = 13.99$   $F_{05} = 15.94$

$F_{06} = 14.77$   $F_{07} =$   $F_{08} =$   $F_{09} =$   $F_{10} =$

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Data for Group G

$G_{01} = 12.54$   $G_{02} = 11.01$   $G_{03} = 14.95$   $G_{04} = 16.7$   $G_{05} = 21.75$

$G_{06} = 13.3$   $G_{07} = 12.26$   $G_{08} =$   $G_{09} =$   $G_{10} =$

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Data for Group H

$H_{01} = 14.68$   $H_{02} = 14.48$   $H_{03} = 13.09$   $H_{04} = 12.26$   $H_{05} = 14.98$

$H_{06} = 13.90$   $H_{07} =$   $H_{08} =$   $H_{09} =$   $H_{10} =$

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*Figure 11: Data entry for ANOVA for tensiel strength of the composites post-cured in microwaves*

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## ANOVA: Results

The results of a ANOVA statistical test performed at 19:07 on 2-DEC-2012

Source of Variation	Sum of Squares	d.f.	Mean Squares	F
between	6109.	7	872.6	84.43
error	423.8	41	10.34	
total	6533.	48		

The probability of this result, assuming the null hypothesis, is 0.000

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Group A: Number of items= 6  
44.7 47.7 48.7 48.8 52.7 57.4

Mean = 50.0  
95% confidence interval for Mean: 47.33 thru 52.64  
Standard Deviation = 4.43  
Hi = 57.4 Low = 44.7  
Median = 48.7  
Average Absolute Deviation from Median = 2.95

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Group B: Number of items= 6  
18.3 22.7 23.2 26.0 29.5 31.2

Mean = 25.1  
95% confidence interval for Mean: 22.49 thru 27.79  
Standard Deviation = 4.75  
Hi = 31.2 Low = 18.3  
Median = 24.6  
Average Absolute Deviation from Median = 3.75

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Group C: Number of items= 6  
14.3 14.8 17.5 17.6 17.8 24.8

Mean = 17.8  
95% confidence interval for Mean: 15.14 thru 20.44  
Standard Deviation = 3.74  
Hi = 24.8 Low = 14.3  
Median = 17.6  
Average Absolute Deviation from Median = 2.27

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Group D: Number of items= 6  
15.4 17.1 17.4 18.4 19.4 22.5

Mean = 18.4  
95% confidence interval for Mean: 15.70 thru 21.00  
Standard Deviation = 2.44  
Hi = 22.5 Low = 15.4  
Median = 17.9  
Average Absolute Deviation from Median = 1.73

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Group E: Number of items= 6  
15.9 16.0 17.4 18.6 20.2 20.7

Mean = 18.1  
95% confidence interval for Mean: 15.48 thru 20.78  
Standard Deviation = 2.06  
Hi = 20.7 Low = 15.9  
Median = 18.0  
Average Absolute Deviation from Median = 1.70

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Group F: Number of items= 6  
12.8 14.0 14.8 15.0 15.8 15.9

Mean = 14.7  
95% confidence interval for Mean: 12.06 thru 17.37  
Standard Deviation = 1.18  
Hi = 15.9 Low = 12.8  
Median = 14.9  
Average Absolute Deviation from Median = 0.865

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Group G: Number of items= 7  
11.0 12.3 12.5 13.3 14.9 16.7 21.8

Mean = 14.6  
95% confidence interval for Mean: 12.19 thru 17.10  
Standard Deviation = 3.65  
Hi = 21.8 Low = 11.0  
Median = 13.3  
Average Absolute Deviation from Median = 2.51

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Group H: Number of items= 6  
12.3 13.1 13.9 14.5 14.7 15.0

Mean = 13.9  
95% confidence interval for Mean: 11.25 thru 16.55  
Standard Deviation = 1.04  
Hi = 15.0 Low = 12.3  
Median = 14.2  
Average Absolute Deviation from Median = 0.815

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*Figure 12: Results of ANOVA for tensile strength of the composites post-cured in microwaves*